## **Abstract**

A device for monitoring the flame of oil burners, in particular of yellow-flame or blue-flame oil burners, comprises a flame sensor detecting the illumination intensity in the burning chamber and a monitoring circuit, controlling the fuel supply in dependence on the detected illumination intensity, with a luminance threshold ( $B_{max}(I)$ ) for the starting phase (I) of the oil burner, above which an error message is issued, and with a darkness threshold ( $B_{min}(III,IV)$ ) higher than the luminance threshold ( $B_{max}(I)$ ) for the stabilization and operating phase (III,IV) of the oil burner, below which an error message is issued. The darkness threshold ( $B_{min}(III)$ ) is thereby higher during the stabilization phase (III) than the darkness threshold ( $B_{min}(IV)$ ) during the subsequent operating phase (IV). Consequently, the same flame sensor can be used for yellow-flame and blue-flame oil burners.